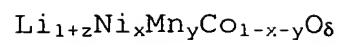


## Abstract

A powder of a layered lithium-nickel-manganese-cobalt composite oxide for use as a positive-electrode material for lithium secondary battery is provided which, when used as a positive-electrode material for lithium secondary battery, enables a cost reduction and higher safety to be reconciled with improved battery performances.

The powder of a layered lithium-nickel-manganese-cobalt composite oxide for use as a positive-electrode material for lithium secondary battery is composed of secondary particles formed by the aggregation of primary particles. It has a composition represented by the following formula (I), has a volume resistivity of  $5 \times 10^5$   $\Omega \cdot \text{cm}$  or lower in the state of being compacted at a pressure of 40 MPa, and has a value of  $C/S$ , wherein  $C$  is the concentration of carbon contained therein (% by weight) and  $S$  is the BET specific surface area thereof ( $\text{m}^2/\text{g}$ ), of 0.025 or smaller. The powder has been regulated so as to have a volume resistivity not higher than the specified value and a considerably reduced carbon content while having a composition in a limited range, whereby a cost reduction and higher safety can be reconciled with improved battery performances.



( I )

( 0 < z ≤ 0.91, 0.1 ≤ x ≤ 0.55, 0.20 ≤ y ≤ 0.90, 0.50 ≤ x+y ≤ 1, 1.9 ≤ δ ≤ 3 )